INTERNATIONAL SEARCH REPORT

Internat Application No PCT/EP 03/12219

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12P1/02 C07K14/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07K C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal, MEDLINE, BIOSIS, EMBASE, CHEM ABS Data, SEQUENCE

SEARCH	ita, PAJ, EPO-Internal, MEDLINE, E I	, ,	•
C. DOCUM	IENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of t	he relevant passages	Retevant to claim No.
Y	WO 97 02343 A (UNILEVER PLC ;l (NL)) 23 January 1997 (1997-03 see esp. claim 6 and the whole document		1-11
Y	WO 99 37782 A (TWIGG SARAH ;UI (GB); WORRALL DAWN (GB); JARM 29 July 1999 (1999-07-29) see esp. claim 6 and p.35, 1.	AN CARL DUD)	1-11
Y	WO 99 37673 A (BYASS LOUISE JAPEC (GB); SIDEBOTTOM CHRISTOP 29 July 1999 (1999-07-29) see esp. claim 6 and p.5,1.5-	HER MICHA)	1-11
X Fu	rther documents are listed in the continuation of box C.	X Patent family members are list	ted in annex.
A documer cons *E* earlier filling *L* documer white cital *O* documer other *P* documer later	categories of cited documents: ment defining the general state of the art which is not sidered to be of particular relevance or document but published on or after the International of date of the definition of the side of the establish the publication date of another ion or other special reason (as specified) ment referring to an oral disclosure, use, exhibition or or means ment published prior to the international filing date but or than the priority date claimed	"T" later document published after the or priority date and not in conflict cited to understand the principle of invention "X" document of particular relevance; to cannot be considered novel or cate involve an inventive step when the "Y" document of particular relevance; to cannot be considered to involve a document is combined with one of ments, such combination being of in the art. "&" document member of the same particular of mailing of the international	with the application but or theory underlying the he claimed invention nnot be considered to e document is taken alone the claimed invention in inventive step when the or more other such docubivious to a person skilled
	15 March 2004	06/04/2004	
Name and	d mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2	Authorized officer	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/12219

		PCT/EP 0	3/12219
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with Indication, where appropriate, of the relevant passages		Relevant to claim No.
A	WO 94 04687 A (STRAHL BOLSINGER SABINE; TANNER WIDMAR (DE); FLEER REINHARD (FR);) 3 March 1994 (1994-03-03) the whole document		
A	CHAO H ET AL: "STRUCTURE-FUNCTION RELATIONSHIP IN THE GLOBULAR TYPE III ANTIFREEZE PROTEIN: IDENTIFICATION OF A CLUSTER OF SURFACE RESIDUES REQUIRED FOR BINDING TO ICE" PROTEIN SCIENCE, CAMBRIDGE UNIVERSITY PRESS, CAMBRIDGE, GB, vol. 3, 1994, pages 1760-1769, XP000601182 ISSN: 0961-8368		
;			
:			
		١	
·			
	·		

INTENIATIONAL SEARCH REPORT

Information on patent family members

Internation Application No
PCT/EP 03/12219

Patent document cited in search report Publication date	Patent family member(s) 723039 B2 6519096 A 9609325 A 2226101 A1 1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	Publication date 17-08-2000 05-02-1997 25-05-1999 23-01-1997 23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998 09-05-2002 09-08-1999 24-10-2000 29-07-1999
WO 9937782 A 29-07-1999 AU AU BR CA CN CN WO EP HU JP PL SK TR ZA CN WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JD JP PL SK TR CA	6519096 A 9609325 A 2226101 A1 1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	05-02-1997 25-05-1999 23-01-1997 23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998 05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN CN WO EP HU JP PL SK TR ZA CN WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JP PL SK TR CA CN WO EP HU JD JP PL SK TR CA	6519096 A 9609325 A 2226101 A1 1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	05-02-1997 25-05-1999 23-01-1997 23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998 05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU JP PL SK TR TR CA CN WO EP HU JD JP PL SK TR CA CN WO WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR TR CA CN WO EP HU ID JP PL SK TR TR CA CN WO EP HU ID JP PL SK TR TR EP HU ID JP PL SK TR TR TR EP HU ID JP PL SK TR TR TR EP HU ID JP PL SK TR TR TR EP HU ID JP PL SK TR	9609325 A 2226101 A1 1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	25-05-1999 23-01-1997 23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
CA CN CZ WO EP HU JP JP JP PL SK TR ZA WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR CA CN WO EP HU ID JP PL SK TR TR WO 99404687 A 03-03-1994 DE AT AU	2226101 A1 1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	23-01-1997 23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR ZA WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR TR WO 99404687 A 03-03-1994 DE AT AU AU AU CA DE	1193999 A 9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	23-09-1998 13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
CZ WO EP HU JP JP PL SK TR ZA ZA Z9-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR ZA CN WO EP HU JP PL SK TR CA CN WO EP HU ID JP PL SK TR WO 9404687 A O3-03-1994 DE AT AU AU AU AU CA DE DE AT AU AU AU AU AU AU AU	9800006 A3 9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	13-05-1998 23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU ID JP PL SK TR WO 99404687 A 03-03-1994 DE AT AT AU AU CA DE	9702343 A1 0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	23-01-1997 22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
EP HU JP JP PL SK TR ZA WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR AT AU AU CA DE	0836646 A1 9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	22-04-1998 01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
HU JP JP PL SK TR ZA WO 9937782 A 29-07-1999 AU BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9802321 A2 11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	01-02-1999 27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN WO PP PL SK TR TR ZA CA CN WO EP HU JP PL SK TR CA CN WO EP HU ID JP PL SK TR CA CN WO EP HU ID JP PL SK TR TR CA CN WO EP HU ID JP PL SK TR TR CA CN WO EP HU ID JP PL SK TR TR CA CN WO EP HU ID JP PL SK TR TR EP	11508451 T 2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	27-07-1999 12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
WO 9937782 A 29-07-1999 AU BR CA CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2004043484 A 324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	12-02-2004 25-05-1998 08-07-1998 21-05-1998 05-01-1998
PL SK TR ZA WO 9937782 A 29-07-1999 AU AU BR CA CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU BR CA CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	324437 A1 179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	25-05-1998 08-07-1998 21-05-1998 05-01-1998
SK TR ZA WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	179497 A3 9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	08-07-1998 21-05-1998 05-01-1998
TR ZA WO 9937782 A 29-07-1999 AU AU BR CA CN WO PPL SK TR WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9701752 T1 9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	21-05-1998 05-01-1998
ZA WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9605735 A 747087 B2 2418899 A 9814776 A 2319118 A1	05-01-1998
WO 9937782 A 29-07-1999 AU AU BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	747087 B2 2418899 A 9814776 A 2319118 A1	09-05-2002 09-08-1999 24-10-2000
AU BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2418899 A 9814776 A 2319118 A1	09-08-1999 24-10-2000
BR CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9814776 A 2319118 A1	24-10-2000
CA CN WO EP HU JP PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR	2319118 A1	
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR		/9-11/-1999
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR		
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR	1290300 T	04-04-2001
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR	9937782 A2	29-07-1999
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU AU CA DE	1049783 A2	08-11-2000
PL SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR	0101252 A2	28-08-2001
SK TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2002504316 T	12-02-2002
TR WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU AU CA DE	342578 A1	18-06-2001
WO 9937673 A 29-07-1999 AU AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	10952000 A3	12-02-2001
AU BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	200002101 T2 	22-01-2001
BR CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	753334 B2	17-10-2002
CA CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2614899 A	09-08-1999
CN WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9814760 A	17-10-2000
WO EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2318869 A1	29-07-1999
EP HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	1284085 T	14-02-2001
HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	9937673 A2	29-07-1999
HU ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	1049713 A2	08-11-2000
ID JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	0100410 A2	28-06-2001
JP PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	25509 A	05-10-2000
PL SK TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	2002508303 T	19-03-2002
WO 9404687 A 03-03-1994 DE AT AU AU CA DE		18-06-2001
TR WO 9404687 A 03-03-1994 DE AT AU AU CA DE	342568 A1	18-01-2001
AT AU AU CA DE	342568 A1 10932000 A3	21-12-2000
AU AU CA DE	342568 A1 10932000 A3 200002105 T2	
AU CA DE	10932000 A3 200002105 T2 	17-02-1994
CA DE	10932000 A3 200002105 T2 	15-08-2003
DE	10932000 A3 200002105 T2 	15-08-2003 17-07-1997
	10932000 A3 200002105 T2 	15-08-2003
DF	10932000 A3 200002105 T2 	15-08-2003 17-07-1997
<u> </u>	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2	15-08-2003 17-07-1997 15-03-1994
WO	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1	15-08-2003 17-07-1997 15-03-1994 03-03-1994
EP	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998
FI	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003
JP	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995
NO	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1 950628 A	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995 13-02-1995
NZ NZ	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1 950628 A 8500975 T	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995 13-02-1995 06-02-1996
US	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1 950628 A 8500975 T 950534 A	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995 13-02-1995 06-02-1996 05-04-1995
ZA	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1 950628 A 8500975 T 950534 A 255350 A	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995 13-02-1995 06-02-1996 05-04-1995 26-11-1996
	10932000 A3 200002105 T2 4226971 A1 245701 T 679935 B2 4948293 A 2140894 A1 4244915 C2 69333112 D1 9404687 A1 0658203 A1 950628 A 8500975 T 950534 A	15-08-2003 17-07-1997 15-03-1994 03-03-1994 03-12-1998 28-08-2003 03-03-1994 21-06-1995 13-02-1995 06-02-1996 05-04-1995